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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,741	04/25/2000	YUTAKA NAKAJIMA	1018.098US1	9943
5251	7590	03/16/2005	EXAMINER	
SHOOK, HARDY & BACON LLP			SPOONER, LAMONT M	
2555 GRAND BLVD			ART UNIT	
KANSAS CITY,, MO 64108			PAPER NUMBER	
			2654	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/557,741

Applicant(s)

NAKAJIMA ET AL.

Examiner

Lamont M Spooner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, and 16-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, and 16-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Informalities

1. Regarding claim 8, page 4, line 3, the Examiner notes, without objection, the applicant states "an abstraction thereof of", a possible typographical error.

Response to Amendment

2. The Applicant's remarks/amendment based upon the finality of the rejection of the prior Office Action, received 2/7/05, merits further consideration, further explanation, and further examination. Accordingly, the finality of the previous Office action, mailed 1/13/2005, is withdrawn for the purpose of entering a new rejection based on newly discovered reference(s) that indicate non-patentability of the claims.
3. The indication of allowability and allowable subject matter in claims 1, 8, 16 and 23 are withdrawn in view of the newly discovered reference(s) of Reynar et al. [U. S. Patent Number 6,789,231]. The indication of allowability and of the dependent claims 2-7, 9, 10, 17-22, 24 and 25 are withdraw as they depend from the above listed parent claims. Rejections based on the newly cited reference(s) follow. The Examiner apologizes for prematurely indicating allowable matter and the belated discovery of grounds for rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-10, and 16-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Reynar et al. (hereinafter referred to as Reynar, US Patent No. 6,789,231 filed Oct. 5, 1999).

As per **claim 1**, Reynar discloses a machine-readable medium having instructions stored thereon for execution by a processor to implement a computer program (C.7.lines 20-27, C.8.lines 38-59) providing a language model service shareable among handlers for input devices, comprising:

a pre-processing mode of operation in which the language model service (Fig. 2 item 137) is designed to receive a range within a document (C.14.lines 65-67) from a handler (Fig.1 item 139-C.11.lines 21-25, 40-45) for an input device (Fig. 2 item 280) and in response provide to the handler advice regarding text under consideration by the handler to insert within the document at the range (C.12.lines 9-24, Fig. 3 items 300, 310-the range, Fig. 4b item 416), wherein the handler relies on a first language model for determining text entry (Fig. 2 item 270a, C.9.lines 21-23, 52-62-determination of text entry, the stochastic model including a lattice and meta-lattice is interpreted as a first language model) and the language model service relies on a second language model distinct from the first language model (Fig. 2 item 220), the second language model related to a context of the document within range (C.12.lines 16-20), the advice for consideration by the handler (C.12.lines 9-24), wherein the handler determines and enters text in order to create the document after considering conclusions of the first

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text for input to the word processor flow through the handler which creates the document, C.12.lines 1-12); and,

a correction mode of operation (C.12.lines 9-11-the option inherently describes a mode of operation) in which the language model service is designed to supervise correction over a range of text within a document in which a number of different handlers for a number of different input devices were initially responsible for insertion of the text (C.11.line 53-C.12.line 24, C.14.lines 58-64), such that the language model service solicits suggestions from the different handlers and after considering the suggestions of the number of different handlers and the second language model, the language model service determines text corrections (C.11.line 53-C.12.line 24, C.14.lines 58-64, Fig. 2 items 270a, 270b, 139).

As per **claim 2**, Reynar discloses all of the limitations of claim 1, upon which claim 2 depends. Reynar further discloses:

the advice provided by the language model service to the handler for the input device in the pre-processing mode of operation comprises a best path through a lattice, maintained by the language model service (C.9.line 63-C.10.line 15).

As per **claim 3**, Reynar discloses all of the limitations of claim 1, upon which claim 3 depends. Reynar further discloses:

the text corrections determined by the language model service in the correction mode of operation are made by the language model service itself (C.12.lines 9-21).

As per **claims 4**, Reynar discloses all of the limitations of claim 1, upon which claim 4 depends. Reynar further discloses:

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the text corrections determined by the language model service in the correction mode of operation are returned to the different handlers such that the different handlers are requested to make the text corrections themselves (C.12.lines 5-8, C.14.lines 3-33- "returned to..."-the communication to the handlers through the stochastic input combiner, wherein the handlers make the corrections).

As per **claim 5**, Reynar discloses all of the limitations of claim 1, upon which claim 5 depends. Reynar further discloses:

the suggestions solicited by the language model service from the different handlers in the correction mode of operation comprise paths through lattices maintained by the different handlers (C.9.line 9-C.10.line 14-best path lattices maintained through handwriting and speech handler, Fig. 2 items 230, 240, C.4.lines 9-34).

As per **claim 6**, Reynar discloses all of the limitations of claim 1, upon which claim 6 depends. Reynar further discloses:

the language model service interacts with a common text framework to access the document (C.15.lines 49-63-the common text framework resides in the language model service).

As per **claim 7**, Reynar discloses all of the limitations of claim 6, upon which claim 7 depends. Reynar further discloses:

the language model service accesses the document through an abstraction of the document exposed by an owning application via the common text framework

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(C.15.lines 49-63, the owning application is found in the data structure that stores the source of each word).

As per **claim 8**, Reynar discloses a machine-readable medium having instructions stored thereon for execution by a processor to implement a computer program (C.7.lines 20-27, C.8.lines 38-59) providing a language model service shareable among handlers for input devices, comprising:

a pre-processing mode of operation in which the language model service (Fig. 2 item 137) is designed to receive from a handler for an input device a range within a document (C.14.lines 65-67) of an owning application (C.15.lines 49-63, the owning application is found in the data structure that stores the source of each word), access to which is through an abstraction (C.15.line 64-C.16.line 7-the abstraction of the text is found wherein the text is parsed with different/multiple definitions to determine the text components of a word or phrase) thereof of exposed by the owning application via a common text framework (C.15.lines 49-63, the owning application is found in the data structure that stores the source of each word), and in response provide to the handler advice regarding text under consideration by the handler to insert within the document at the range (C.12.lines 9-24), wherein the handler relies on a first language model for determining text entry (Fig. item 270a, C.9.lines 21-23, 52-62-determination of text entry, the stochastic model including a lattice and meta-lattice is interpreted as a first language model) and the language model service relies on a second language model distinct from the first language model (Fig. 2 item 220), the second language model related to a context of the document within range (C.12.lines 16-20), the advice for

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consideration by the handler (C.12.lines 9-24), wherein the handler determines and enters text in order to create the document after considering conclusions of the two language models (C.11.lines 40-42-all considerations of text for input and inputted into the word processor flow through the handler, Fig. 2 item 139, which creates the document,C.12.lines 1-12); and,

a correction mode of operation (C.12.lines 9-11-the option inherently describes a mode of operation) in which the language model service is designed to supervise correction over a range of text within a document in which a number of different handlers for a number of different input devices were initially responsible for insertion of the text (C.11.line 53-C.12.line 24, C.14.lines 58-64), such that the language model service solicits suggestions from the different handlers and after considering the suggestions of the number of different handlers and the second language model, the language model service determines text corrections (C.11.line 53-C.12.line 24, C.14.lines 58-64, Fig. 2 items 270a, 270b, 139).

As per **claim 9**, Reynar discloses all of the limitations of claim 8, upon which claim 9 depends. Reynar further discloses:

the text corrections determined by the language model service in the correction model service in the correction mode of operation are made by the language model service itself (C.12.lines 9-21, C.14.lines 19-34) via the common text framework through the abstraction of the document (C.15.line 64-C.16.line 7) exposed by the owning application (C.15.lines 49-63).

As per **claim 10**, Reynar discloses all of the limitations of claim 8, upon which claim 10 depends. Reynar further discloses:

the text corrections determined by the language model service in the correction mode of operation are returned to the different handlers such that the different handlers are requested to make the text corrections themselves (C.12.lines 5-8, C.14.lines 3-33- "returned to..."-the communication to the handlers through the stochastic input combiner, wherein the handlers make the corrections), such that the different handlers make the text corrections via the common text framework through the abstraction of the document exposed by the owning application (C.15.line 49-C.16.line 7-the text corrections and handlers are maintained via the common text framework through the abstraction of the document exposed by the owning application as explained above).

As per **claim 16**, Reynar discloses a computer-implemented method comprising:
soliciting suggestions over a range of text within a document by a language model service implementing a first language model in a correction mode of operation (C.12.lines 1-24-the natural language model service solicits suggestions over a range of text inherently by it's development of alternatives directly from the range of text provided to the handler, Fig. 2 item 139) in which a number of different handlers for a number of different input devices (Fig. 2 items 280, 290, 270a, 270c) were initially responsible for insertion of the text (C.14.lines 19-34), each of the different handlers implementing a language model distinct from the first language model (Fig. 2 items 230, 240, 270a, 270b- the handlers are implementing stochastic language models which are distinct from the first language model);

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receiving the suggestions by the language model service from the different handlers (C.14.lines 15-34); and determining corrections to the text by the language model service after considering the first language model and the suggestions received from the different handlers (C.14.lines 29-31).

As per **claim 17**, Reynar discloses all of the limitations of claim 1, upon which claim 3 depends. Reynar further discloses:

making the corrections by the language model service itself (C.12.lines 18-21).

As per **claim 18**, Reynar discloses all of the limitations of claim 17, upon which claim 18 depends.

Claim 18 sets forth limitations similar to claim 6 and 7, and additional limitations similar to claim 8. Claims 6, 7, and 8 describe the limitations as indicated there.

As per **claim 19**, Reynar discloses all of the limitations of claim 16, upon which claim 19 depends. Reynar further discloses:

receiving the corrections by the different handlers from the language model service (C.14.lines 29-31); and,

making the corrections by the different handlers themselves (C.12.lines 5-8, C.14.lines 3-34-"returned to..."-the communication to the handlers through the stochastic input combiner, wherein the handlers make the corrections, multiple handlers determine corrections).

As per **claim 20**, Reynar discloses all of the limitations of claim 19, upon which claim 20 depends.

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Claim 20 sets forth limitations similar to claim 18. Claim 18 describes the limitations as indicated there.

As per **claim 21**, Reynar discloses all of the limitations of claim 16, upon which claim 21 depends. Reynar further discloses:

wherein access to the range of text of the document by the language model service and the different handlers is through an abstraction thereof as exposed by an owning application via a common text framework (C.15.line 49-C.16.line 7-the text corrections and handlers are maintained via the common text framework through the abstraction of the document exposed by the owning application as explained above).

As per **claim 22**, Reynar discloses all of the limitations of claim 16, upon which claim 22 depends.

Claim 22 sets forth the limitations similar to claim 5. Claim 5 describes the limitations as indicated therein.

Claim 23 sets forth the limitations similar to claim 1, and additional limitations similar to limitations set forth in claims 3 and 4. Claims 1, 3 and 4 describe the limitations as indicated therein.

As per **claim 24**, Reynar discloses all of the limitations of claim 23, upon which claim 24 depends. Reynar further discloses:

the plurality of handlers (C.12.lines 8-11, Fig. 2 items 230, 240) and the language model service interacts with a common text framework to access the document (C.15.lines 49-63-the common text framework resides in the language model service).

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As per **claim 25**, Reynar discloses all of the limitations of claim 24, upon which claim 25 depends. Reynar further discloses:

wherein the plurality of handlers (Fig. 2 items 230, 240) and the language model service accesses the document through an abstraction of the document exposed by an owning application via the common text framework (the plurality of handlers, C.12.lines 6-8, and the language model service access the document through the abstraction of the document exposed by an owning application, C.15.lines 49-63- the owning application is found in the data structure that stores the source of each word, C.15.lines 49-63-the common text framework resides in the language model service).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Reynar et al. (US Patent No. 6,415,258 filed Oct. 6, 1999) teaches having a stochastic input combiner to generate alternatives to a text selection and utilized a natural language model to provide a revision or correction to suggestions from a number of different handlers.
- Gillick et al. (US Patent No. 6,167,377 filed Mar. 28, 1997) teaches having multiple language models and combining results to determine a most effective language model for candidate recognition.

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- Gould et al. (US Patent No. 6,073,097 filed Jun. 26, 1997) teaches having multiple handlers in communication with multiple language models determine a candidate word or phrase wherein a first and second set of models and a score for a given word from different world model sets are used to determine word recognition.
- Golding (US Patent No. 5,659,771 Aug. 19, 1997) teaches having a language model wherein the context of a word in a sentence is utilized to determine which of several alternatives or possible words where intended and a correction mode for determining a correctly recognized word.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M Spooner whose telephone number is 703/305-8661. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703/305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lms
3/7/05


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER